Coinmaster GT

Owner's Manual

White's Electronics, Inc.
Sweet Home, Oregon USA

Building the World's Finest
metal detectors for over 60 years.

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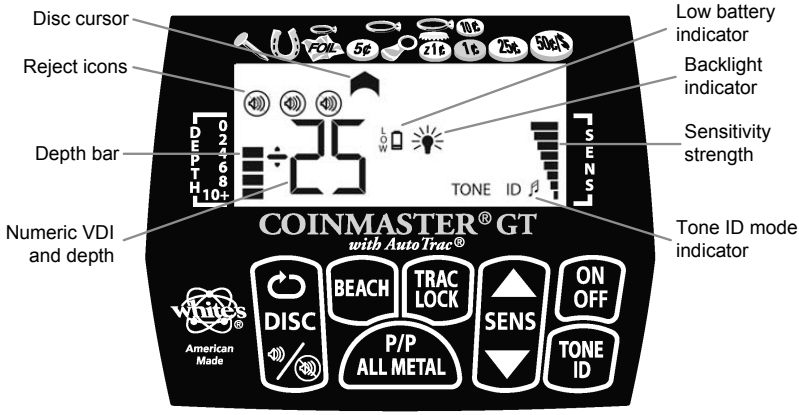
Introduction

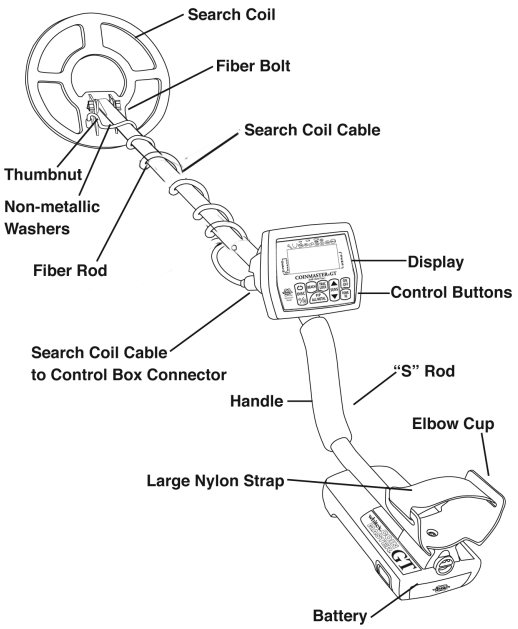


The Coinmaster GT (or *CoinGT*) is an easy-to-use metal detector with features and performance that rival more expensive models. The *CoinGT* has automatic ground tracking (*AutoTrac*®) which maximizes performance across many different ground conditions. It also features a 9-zone discriminator with both audio and visual target identification. Each zone may be accepted or rejected, providing the user with a way to ignore certain types of targets like iron or foil.

In normal search mode (i.e., "Disc" mode) the audio has a silent threshold and optional Tone ID with 9 tones that correlate to the 9 different discrimination zones. In addition to the audio response, the display provides visual information with an icon cursor that points to a probable target type and a Visual Display Indicator (VDI) number that provides even more detailed target information (see **More Info** for an explanation of VDI numbers). An estimated target depth is given by the depth bar. The Pinpoint and All Metal modes provide an audible threshold tone and a user-selectable VCO response or a loudness response (non-VCO).

The *CoinGT* uses 8 "AA" batteries and will typically run 25 hours on fresh alkaline batteries. The display includes an optional backlight which allows for extended hunting, but will increase battery consumption.

Assembly



1. Remove all parts from the shipping carton and check assembly diagram to ensure all parts are present.
2. Install black rubber washers on fiber clevis/lower rod, insert clevis lower rod onto loop ears. Use only nonmetallic washers, fiber bolt, and fiber thumb nut to secure loop/search coil to clevis/lower fiber rod.
3. Insert clevis/lower rod into curved "S" rod so that stainless steel spring clip buttons line up and lock into one of the adjustment holes in the curved "S" rod. The second or third adjustment holes are suitable for average sized adults.
4. Wind the loop cable around the rod assembly, first revolution over the top of the rod, all the way to the top of the curved "S" rod, about five revolutions. Use the black cable retainers, one near the loop, and one near the top of the curved "S" rod, to hold the loop cable in place. Plug the cable into the jack on the front of the control box.

5. Grip the instrument by the handle, with your arm in the elbow cup with strap and sweep the loop/search coil over the floor. If the instrument fit feels uncomfortable, readjust clevis/lower rod length with spring clip button and cam-lock so that search coil can be held near the floor without stooping over.
6. Adjust the elbow cup strap so that it is loose enough for you to slide your arm in and out without loosening each time you want to set the detector down. The elbow cup strap provides extra leverage and control. However, some prefer not to use it.
7. Install the battery pack.

Batteries

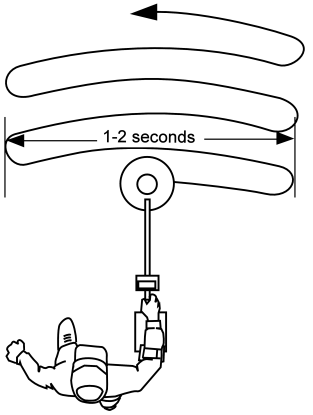
1. Remove the battery pack by pressing both buttons on sides of battery compartment.
2. Slide open the tray cover. Install eight (8) "AA" alkaline batteries taking note of correct (+) and (-) positions and close cover.
3. Slide battery pack into compartment. A vigorous 'slam' may be needed to ensure a good seating.
4. Press ON/OFF button. Good batteries will produce a high pitched beep on power-up. A low pitched beep indicates low batteries.
5. Batteries that are weak, or become weak during use, will automatically indicate Low Batt with a battery icon on the center portion of the display. A three-beep alarm also sounds to indicate batteries are too low for operation.
6. Most alkaline batteries will give about 25 hours of continuous operation. Battery life will vary with intermittent use, back-light use, temperature, control settings, target indications, battery quality, battery condition upon purchase, and

shelf life. It is a good idea to carry back up batteries.

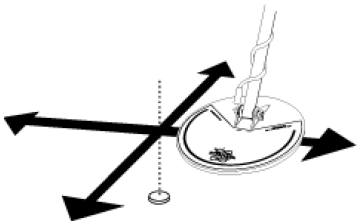
7. A rechargeable NiMH battery pack may be purchased separately. Rechargeable batteries typically provide similar or slightly less run time than alkaline batteries.

QuickStart

1. Turn on the power.
2. The CoinGT has automatic ground tracking. To speed up the initial tracking process, find a spot free of targets and bob the coil up & down a few times (optional).
3. Sensitivity (SENS) defaults to a reasonable level. If the audio is chattery or constantly overloads, reduce the sensitivity level.
4. Sweep the search coil from side-to-side, keeping the coil level and close to the ground. Overlap each sweep by 50% to avoid missing targets.



5. Once a target is detected, use the Pinpoint button to isolate its exact location.



Controls

ON/OFF

Besides the obvious, the **ON/OFF** button also controls the display backlight. Press and hold the button to toggle the backlight.

SENS

The **Sensitivity** control increases or decreases the responsiveness of the *CoinGT*. Normally, this determines how deep the detector will "see" a target.

However, increasing the sensitivity not only increases the response to target signals, but also that of ground signals and electromagnetic interference (EMI). A common mistake is to assume that higher sensitivity will always give better depth. In air tests this is generally true, but ground results can depend on the amount and type of mineralization.

In general, run the sensitivity as high as possible while maintaining smooth operation. If the audio is chattery or the ground is causing overload, reduce the sensitivity.

DISC

The Discrimination control allows you to enable or disable the audio response for select ranges of targets. The *CoinGT* has 9 ranges:

1. Small iron
2. Large iron
3. Foil
4. Nickel
5. Pull tab
6. Zinc cent
7. Copper cent
8. Small silver
9. Large silver

Use the circular arrow button ↻ to cycle the disc cursor through the 9 ranges, and press the disc select button 🔊/🔇 to toggle the selection of a particular range. The range is disabled when the 🔇 symbol is displayed.

TONE ID

By default the *CoinGT* has a single tone audio response regardless of the type of target. Pressing the **TONE ID** button enables a multi-tone audio response whereby each of the 9 target zones has a different audio tone. When Tone ID is enabled a "TONE ID" icon will appear on the display.

TRAC LOCK

The *CoinGT* has automatic ground tracking (*AutoTrac*®) which effectively nulls most ground mineralization. If the audio is chattery and reducing sensitivity doesn't help, lock the ground tracking with the **Trac Lock** button. Pressing **Trac Lock** again immediately updates the ground tracking and returns to *AutoTrac*® mode.

BEACH

Wet salt sand (and sometimes highly fertilized ground) is mildly conductive and difficult for most metal detectors. The **Beach** mode expands the ground tracking range of the *CoinGT* to handle wet salt sand. You may still need to use a slower sweep rate to avoid falsing. This mode is not recommended for normal soils and may cause some targets to track out. Also generally not needed for dry beach sand.

P/P (ALL METAL)

The **Pinpoint** (P/P) button performs two functions. When briefly pressed it switches the *CoinGT* in and out of "All Metal" mode. Discrimination is not applied in the All Metal mode and the *CoinGT* will respond to any metal target. However, Target ID (both the VDI number and the icon cursor) and Depth indication work the same in All Metal mode as in Disc mode. Also

like Disc mode, the All Metal mode requires that the coil be in motion in order to respond to a target. If the coil is held steady over a target it will get tuned out after a few seconds.

When the Pinpoint button is pressed and held it performs the second function of enabling Pinpoint mode, which is typically used to assist in pinpointing a detected target. Pinpoint mode is a true static mode in that audio response is maintained as the coil is held steady over the target.

In both All Metal and Pinpoint mode a threshold audio is applied and a target will cause the loudness to increase. The *CoinGT* also supports VCO[1] audio whereby a target causes the pitch of the threshold to increase. VCO audio is enabled by pressing the **Tone ID** button while in Pinpoint mode.

Display

The *CoinGT* display provides information on the operation of the detector as well as the detected target. On the right is the segmented bar which shows the sensitivity level. On the left is another segmented bar which shows the estimated target depth in increments of 2". A "TONE ID" icon indicates that multi-tone audio is enabled. A low-battery icon will appear when battery voltage falls below about 9 volts.

A large 2-digit number gives the VDI response of the target in both Disc and All Metal modes and the depth of the target in Pinpoint mode. VDI responses are covered in the "More Info" section. The numeric depth is given in 1/2" increments with no decimal point. Therefore, a depth readout of "50" is 5 inches, and a readout of "55" is 5.5 inches.

Across the top of the display are the segments for the 9 discrimination zones. When a target is detected a pointer/cursor points to the zone that corresponds to the type of target. Additionally, these zones can be disabled (rejected) by using the Disc keypad buttons to move the cursor and select/deselect each

1. "VCO" means *voltage-controlled oscillator*

zone. Rejecting a zone only affects the audio; the display will still show target information even if you can't hear an audible response.

The CoinGT display includes a backlight for extended hunting. Press and hold the **On/Off** button to toggle the backlight. In daylight it can be difficult to tell whether the backlight is on or off, so a backlight icon is also displayed. The backlight will reduce battery life by 30% so it's best to turn it off when not needed.

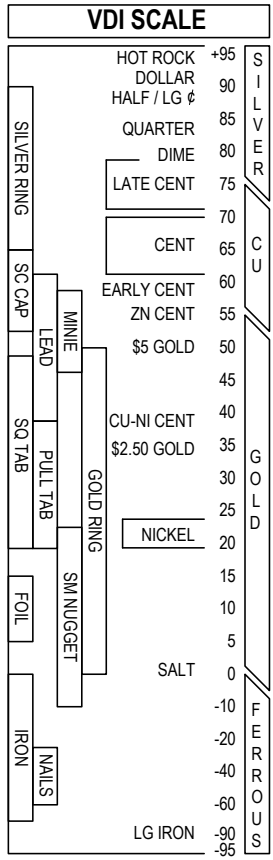
More Info

VDI

VDI stands for *Visual Display Indicator* and is a numeric representation of the target's response. So-called VLF detectors transmit a magnetic field which is disrupted by nearby metal targets. The disruption is seen by the receiver as an increase in signal amplitude (which gives a basic "I found something!") but also creates a signal *phase shift*. This phase shift usually indicates the type of target and can be used both for identifying targets and for discriminating or rejecting them.

White's uses a VDI scale of -95 to +95, where negative numbers correspond to ferrous (iron) targets and positive numbers to non-ferrous targets. A chart of typical VDIs is shown on the right.

There is a lot of overlap amongst targets. For example, due to the variety of sizes and alloys, gold rings can give the



same responses as foil, nickels, and pull tabs. Likewise, pull tabs often look like nickels and vice-versa.

Target ID is by no means foolproof and should be considered only a probability estimate. As we'll see in the next section, the probability decreases with depth. An excellent approach is to work with test targets (especially planted at different depths) to get familiar with target responses.

Depth and Discrimination

The *CoinGT* has both audio and visual target ID, as well as the ability to reject certain ranges of targets. It is important to understand the limitations of target ID — and, because it is based on target ID, discrimination — to avoid missing good targets.

As explained in the section on VDI, target ID is based on the phase shift of a target's received signal. We've already seen that many different types of targets can share VDI responses. Depth also plays a role. A strong target signal (either from a shallow target or a large target) provides for a strong and repeatable phase response from which we can extract a pretty reliable VDI. As the target signal weakens, its VDI becomes less reliable. This can show up as an inconsistent target response as the coil is repeatedly swept over the target. It is not unusual for deep targets to produce an inaccurate target ID, and perhaps even cross over into a rejected zone.

Furthermore, ground mineralization can cause errors in target phase. Even targets of moderate depth can produce an inaccurate target ID if ground mineralization is severe enough.

Reliance on target ID should be tempered, and discrimination should be used with care. A "test garden" with multiple types of targets buried at various depths is a good way to see how target responses behave and to hone your skills in reading these responses.

Overload

If the received signal is too large to process the *CoinGT* will give an *overload* response. This is heard as an obnoxious alarm sound, plus the display will read "OL". An overload can be the result of a large metal target near the surface, or from extreme ground mineralization. If it is the latter, the only recourse is to reduce the sensitivity level until the detector can operate smoothly.

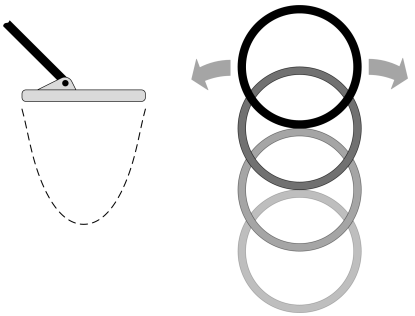
Coil Size

With any metal detector, the size of the search coil presents a trade-off between depth and sensitivity. A larger coil offers better depth on larger targets at the expense of small-target sensitivity, and a smaller coil has better sensitivity to small targets, but at a lesser depth. Small coils also do a better job of separating targets when hunting in trashy areas.

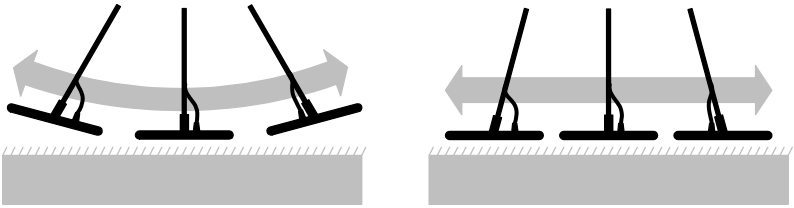
The *CoinGT* comes standard with a 9" concentric coil. An optional 4x6 "DD" coil is also available.

Sweep Methods

Proper sweep technique is important with any detector. Round coils tend to have a conical pattern of sensitivity as illustrated here. As such, coverage at maximum depth is less than the size of the coil, so it is always recommended that successive sweeps are overlapped by about 50%.



Besides overlapping each sweep, it is important to keep the coil close and parallel to the ground. Pendulum-swinging the coil results in loss of depth, and if the ground balance isn't perfectly set the variation in loop height will create a ground response. The following illustration shows improper and proper coil sweep motion.



Wrong **Right**

Finally, sweep speed affects target response and depth. Some detectors are designed for an exceptionally slow sweep speed, some need a fast sweep. The *CoinGT* works best at a moderate rate of about 3 feet per second. Somewhat slower or somewhat faster is fine, but whipping the coil at a fast rate is a good way to miss deeper targets. The bottom line is: swing level, moderate speed, and overlap.

Sizing, Pinpointing, and Digging

When a target is detected move the coil well away from the target area and press/hold the Pinpoint button to switch to the Pinpoint mode. A normal sweep over the target in Pinpoint mode will give an idea of target size. If the response is narrow then it is likely a small coin-sized target. If the response is broad then it could be e.g. a beer can. Small shallow targets can give a broad response, and large deep targets can give a narrow response, so use judgement with this.

Once you determine you want to dig a target, use the Pinpoint mode to zero in on the location. A criss-cross pattern works best, especially using VCO audio to listen for the peak tone. Watch the ground through the open coil to better determine the exact spot.

Be mindful of proper digging techniques when extracting the target. Use the smallest appropriate digging tool, especially in public areas. Learn how to cut plugs that avoid turf damage or, better yet, how to "pop" coins. There are lots of videos on YouTube that demonstrate good extraction protocol.

Specifications

Operating mode . . . . . VLF-IB
Frequency 8.192kHz
Search modes . . . . . Disc, All Metal
Ground balance . . . . . AutoTrac
Disc Audio . . . . . Silent search with (optional) 9 tones
All Metal Audio . . . . . VCO or non-VCO, selectable
Audio output . . . . . Speaker, headphones
Search coil . . . . . 9" Concentric
Weight . . . . . 3 lbs 9 oz
Length . . . . . 45 - 50 inches, adjustable
Batteries . . . . . (8) AA alkaline
Battery life . . . . . 30 hours typical
Warranty . . . . . 2 years, transferrable

Customer Support

Questions concerning your *CoinGT*? There are three ways to contact us:

Internet: **http://whiteselectronics.com/support.html**

Phone:

1-800-547-6911 (US) **(0044) 1463 223456 (UK)**

Or mail us:

White's Electronics
1011 Pleasant Valley Road
Sweet Home, OR 97386

White's Electronics
35 Harbour Road
Inverness, Scotland
IV1 1UA

Warranty

If within two years (24 months) from the original date of purchase, your White's detector fails due to defects in either material or workmanship, White's will repair or replace at its option, all necessary parts without charge for parts or labor.

Simply return the complete detector to the Dealer where you purchased it, or to your nearest Authorized Service Center. The unit must be accompanied by a detailed explanation of the symptoms of the failure. You must provide proof of date-of-purchase before the unit is serviced.

This is a transferable manufacturer warranty, which covers the instrument two years from the original purchase date, regardless of the owner.

Items excluded from the warranty are non-rechargeable batteries, accessories that are not standard equipment, shipping/handling costs outside the continental USA, Special Delivery costs (Air Freight, Next Day, 2nd Day, Packaging Services, etc.) and all shipping/handling costs inside the continental USA 90 days after purchase.

White's registers your purchase only if the Sales Registration Card is filled out and returned to the factory address by your dealer, soon after original purchase for the purpose of recording this information, and keeping you up-to-date regarding White's ongoing research & development.

The warranty does not cover damage caused by accident, misuse, neglect, alterations, modifications, unauthorized service, or prolonged exposure to corrosive compounds, including salt. Duration of any implied warranty (e.g., merchantability and fitness for a particular purpose) shall not be longer than the stated warranty. Neither the manufacturer or the retailer shall be liable for any incidental or consequential damages.

Some states however, do not allow the limitation on the length of implied warranties, or the exclusion of incidental or consequential damages. Therefore, the above limitations may not apply to you. In addition, the stated warranty gives you specific legal rights, and you may have other rights which vary from state-to-state.

The foregoing is the only warranty provided by White's as the manufacturer of your metal detector. Any "extended warranty" period beyond two years, which may be provided by a Dealer or other third party on your detector, may be without White's authority involvement and consent, and might not be honored by White's Electronics, Inc.

Coinmaster GT

Treasure Hunter's Code of Ethics

1. Always check federal, state, county, and local laws before searching.
2. Always obtain the owner's permission before accessing private property.
3. Take care to refill all holes and leave no trace.
4. Remove and dispose of any and all trash and litter found.
5. Whenever possible, return identifiable property to its rightful owner.
6. Never destroy historical or archaeological treasures.
7. Appreciate and protect natural resources, wildlife and property, both public and private.
8. Act as an ambassador for the hobby; be thoughtful, considerate, and courteous at all times.

White's metal detectors are proudly designed, built, and tested in Sweet Home, Oregon USA by the employees of White's Electronics.

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